

ARAC WG Report
Fuselage Doors
FAR/JAR 25.783

Category 3

1 - What is underlying safety issue to be addressed by the FAR/JAR?

To protect the airplane and passengers from hazards from the inadvertent opening of doors.

2 - What are the current FAR and JAR standards relative to this subject?

Current FAR text: See FAR 25.783 "Doors", Amdt 25-88 +

Current JAR text: See JAR 25.783 "Doors", Change 14 +

2a - If no FAR or JAR standard exists, what means have been used to ensure this safety issue is addressed?

The existing standard is applied. In addition, some of the recent ATA task force recommendations have been applied with Airworthiness Directives to several fleets and have been imposed on new designs under "unsafe feature" provision of 21.21(b)(2).

3 - What are the differences in the FAA and JAA standards or policy and what do these differences result in?:

None. The main objective of the proposed rule is NOT the harmonization of differences

4 - What, if any, are the differences in the current means of compliance?

None. The main objective of the proposed rule is NOT the harmonization of differences.

5 - What is the proposed action?

This proposal replaces the current door standard with a new improved door standard. This new standard would set forth, as a regulatory requirement, some of the existing technical guidance criteria which have been determined to be necessary for safety. In addition, the proposal addresses recommendations from the NTSB and from the FAA chartered ATA task force on doors. NTSB (A-89-92, A-89-93, A-89-94, A-92-21) and ATA recommendations are addressed with specific provisions.

For each proposed change from the existing standard, answer the following questions:

6 - What should the harmonized standard be?

See the draft notice for text. Section 25.783 is completely rewritten and reorganized in order to:

- Separate the cabin safety and airworthiness issues so that section § 25.783 now treats only airworthiness.

- Classify doors based on hazard rather than relying entirely on the inward/outward opening movement.
- Clarify the requirement concerning inadvertent and deliberate opening by persons.
- Clarify the fail safe and reliability provision for the pressurization prevention system.
- Add specific criteria for doors that need no pressurization prevention system.
- Add detail design and fail-safe features of latching and locking mechanisms (from existing advisory).
- Add a requirement to remove all power from the door during flight (NTSB A-92-21)
- Add specific requirement for a latch retention system in addition to locks.
- Add a new fail-safe criterion for the locking system for outward opening doors under pressure.
- Add a new requirement for an aural warning before takeoff for certain doors.
- Add door operator station requirements for advisory and warnings (NTSB A-89-093).
- Provide relief for certain access panels, maintenance doors, and removable emergency exits.
- Amend several cabin safety rules to accept provisions moved from section § 25.783.

7 – How does this proposed standard address the underlying safety issue (identified under #1)?

The rule is set forth with multiple independent layers of safety intended to account for failures, adverse conditions of operation and, in accordance with NTSB recommendation (A-89-94), human error and abuse.

8 – Relative to the current FAR, does the proposed standard increase, decrease, or maintain the same level of safety? Explain.

Overall increase with some relief for specific kinds of doors. See the NPRM discussion section.

9 – Relative to current industry practice, does the proposed standard increase, decrease, or maintain the same level of safety? Explain.

Same or slight increase. See the NPRM discussion section

10 – What other options have been considered and why were they not selected?:

The HWG has no idea how to answer this question. The only option has been to accomplish the task in a harmonized fashion with full consensus if possible. In doing so, dozens of drafts and thousands of words were considered. The final proposal is the result.

11 - Who would be affected by the proposed change?

The revised rule would be applicable to new airplanes for which the application for type certificate is received after the effective date.

12 - To ensure harmonization, what current advisory material (e.g., ACJ, AMJ, AC, policy letters) needs to be included in the rule text or preamble?

The existing advisory material are redrafted. Some specific design criteria (i.e. latching and locking criteria) from the existing AC 25.783-1 are proposed to be included in the rule text. See NPRM.

13 - Is existing FAA advisory material adequate? If not, what advisory material should be adopted?

No, see the proposed Advisory Circular 25.783-1A

14 - How does the proposed standard compare to the current ICAO standard?

The current ICAO standard has no specific criteria for the airworthiness of doors.

15 - Does the proposed standard affect other HWG's?

Yes, the reorganization aspect of separating cabin safety and airworthiness criteria affects the cabin safety working group. These items have been coordinated with cabin safety specialists and have been structured according to their request.

16 - What is the cost impact of complying with the proposed standard

Economic analysis still to be done but it is expected to be small in comparison to standard industry practice.

17. - If advisory or interpretive material is to be submitted, document the advisory or interpretive guidelines. If disagreement exists, document the disagreement.

Advisory Circular AC 25.783-1A is submitted with full consensus of the working group

18.- -Does the HWG wish to answer any supplementary questions specific to this project?

Not at this time.

19. - Does the HWG want to review the draft NPRM at "Phase 4" prior to publication in the Federal Register?

Yes

20. - In light of the information provided in this report, does the HWG consider that the "Fast Track" process is appropriate for this rulemaking project, or is the project too complex or controversial for the Fast Track Process? Explain.

No, these changes are too extensive, complex and potentially controversial for the Fast Track Process.